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Home

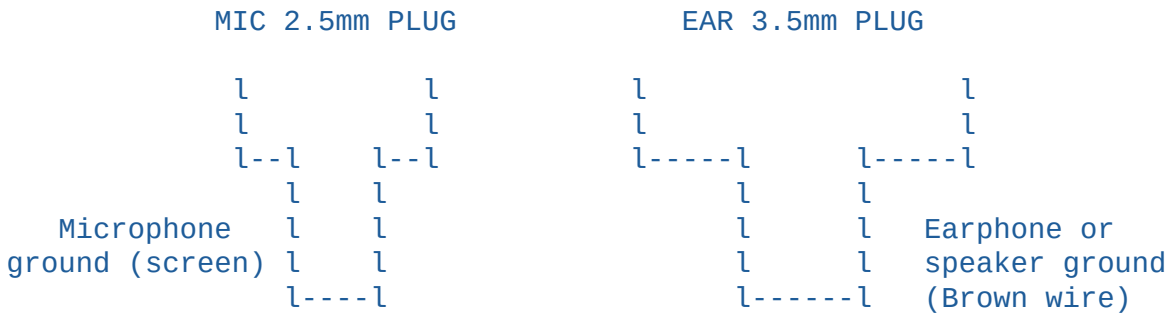
Radio Mods Database and Manuals

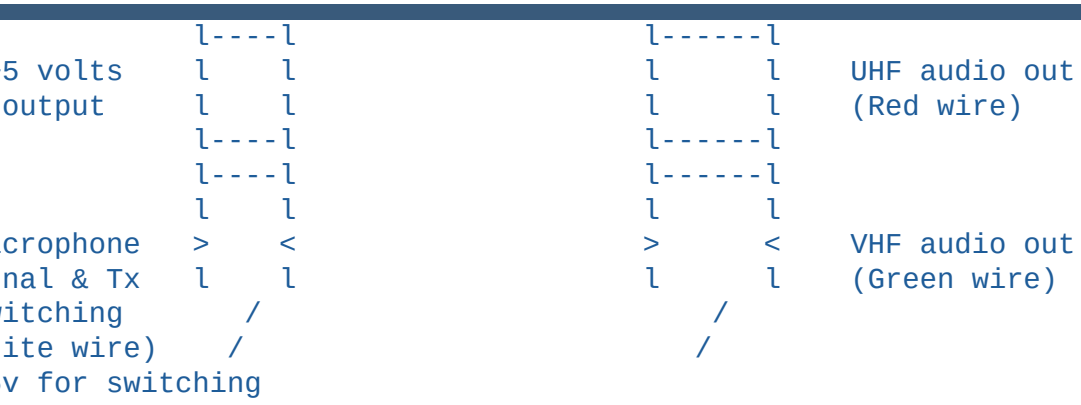
Modifications for the Alinco DJ-580

- Alinco DJ580E to TNC info
- ALINCO DJ-580EB sensitivity measurements
- ALINCO DJ-580EB output power measurements
- DJ-580EB S-meter indication
- DJ-580 secret codes/modes
- DJ-580T coverage for newer rig
- DJ-580 HT review/info (long)
- Alinco DJ-580 repair
- DJ580 mod info (Blue wire)
- Manual for Alinco DJ-580 model
- DJ-580T Keypad mods
- Alinco DJ-580 unt 9600Bd
- Umbauanleitung des Dualband-Handfunkgerätes Alinco DJ580 für Betrieb mit 9k6
- Extended frq. DJ-580 new mod
- DJ-580T 800 MHz software mod

Alinco DJ580E to TNC info

Pin outs for Alinco DJ580E and TNC connections




* +5 volts output
Microphone signal & Tx switching (white wire)
has +5v for switching
UHF audio out (Red wire)
VHF audio out (Green wire)

NOTE:
Wire colours refer to the Alinco lead normally supplied with the EMS-8 speaker microphone.

*
This segment of the MIC plug may not be connected in the lead you have. It is used to supply auxilliary power for such items as VOX mic circuits. In the normal electret microphone the power is obtained from the mic signal line.

The DJ580 has a third phone socket where VHF and UHF can be monitored seperately. The red wire from the centre of the phone plug is for UHF only audio when inserted in this socket. Otherwise use the green wire (tip) for both UHF and VHF audio out.

Now for the TNC connections:

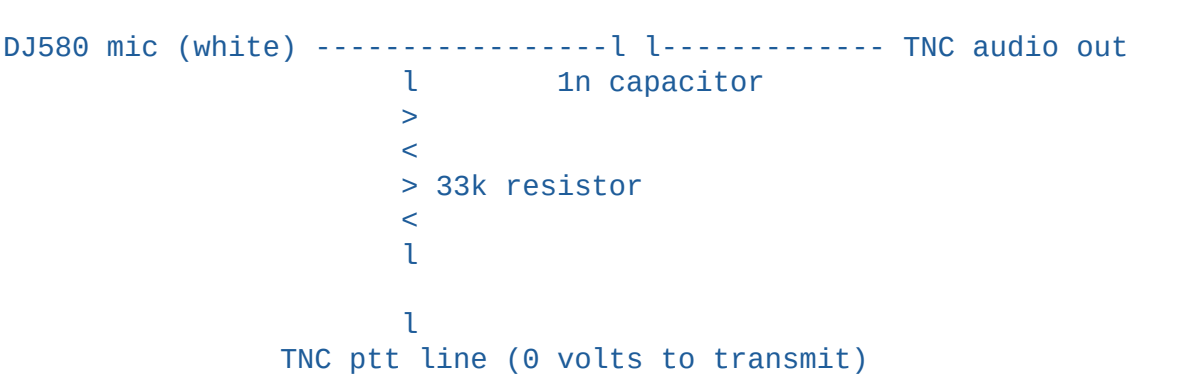
There is no seperate PTT line on this type of handheld (in common with many HH's). Instead transmit is achieved by grounding the Mic signal line through a 33k resistor.

Because the mic signal line carries +5 volts it is also necessary to add a small capacitor in this line to prevent this DC voltage from reaching our TNC.(Some TNC's have a capacitor as standard in the audio output line, in which case no problem.)

Audio in is very simple. Connect the green wire (tip) of the 3.5mm jack plug to the TNC audio in. Mic screen and brown phone ground wire are twisted together and connected to TNC ground.

Connections are:

TNC	DJ580	Wire (if using Alinco cable)
Audio in	3.5mm plug tip	Green
Audio out	2.5mm plug tip	White (needs 1n cap. in series)
PTT	2.5mm plug tip	White (via 1/8watt 33k resistor)
Ground	2.5mm base section	Screen
Ground	3.5mm base section	Brown / Twist together



NOTE:
If you have any Tx switching problems you can try adding two 1n caps between white wire and ground and TNC audio out

and ground.

I use the 580 myself so I know it works.

73's from Jim G0DPX
@ GB7WRG #19 GBR. EU.

ALINCO DJ-580EB sensitivity measurements

All sensitivity measurements performed with Radiocommunication Tester CMT from Rohde & Schwarz.
DJ-580 EB externally supplied with 13.8 Volt
Modifications present during this test:
Keyboard modification (130 - 174 MHz & 400 - 470 MHz reception)
Hardware modification (108 - 143 MHz (AM !) & 810 - 990 MHz reception)

144-146 MHz band:

Generator of CMT set to 2.8 KHz FM-deviation with 1 KHz AF.
Sensitivity is measured for 12 dB SINAD with CCITT filter in CMT switched ON.

```
144.000 MHz          0.12 µV          max. 36 dB SINAD at 5.60 µV
144.500 MHz          0.11 µV
145.000 MHz          0.13 µV
145.500 MHz          0.12 µV
145.995 MHz          0.12 µV          max. 36 dB SINAD at 5.60 µV
```

430-440 MHz band:

Generator of CMT set to 2.8 KHz FM-deviation with 1 KHz AF.
Sensitivity is measured for 12 dB SINAD with CCITT filter in CMT switched ON.

```
430.000 MHz          0.15 µV
432.000 MHz          0.18 µV
434.000 MHz          0.18 µV          max. 36 dB SINAD at 3.0 µV RF input
436.000 MHz          0.18 µV
438.000 MHz          0.16 µV
439.995 MHz          0.17 µV
```

Aircraft band: 108 - 142.990 MHz AM (after hardware modification)

Generator of CMT set to 80% AM-depth with 1 KHz AF. Sensitivity is measured for 12 dB SINAD with CCITT filter in CMT switched ON.

```
108.000 MHz          0.80 µV          max. 16 dB SINAD (!!) (ca. 18% dist. !!)
109.000 MHz          0.75 µV
110.000 MHz          0.68 µV
115.000 MHz          0.77 µV
120.000 MHz          0.60 µV          max. 17 dB (!!) SINAD at 1,15 mV RF input
125.000 MHz          0.55 µV
```

```
130.000 MHz          0.45 µV          max. 16.8 dB(!!) SINAD at 0.66 mV RF input
135.000 MHz          0.43 µV
140.000 MHz          0.37 µV          max. 17 dB (!!) SINAD at 0.45 mV RF input
141.000 MHz          0.36 µV
142.000 MHz          0.35 µV
142.990 MHz          0.38 µV
```

UHF extended band: 810 - 999 MHz FM (after hardware modification)

Generator of CMT set to 2.8 KHz FM-deviation with 1 KHz AF. Sensitivity is measured for 12 dB SINAD with CCITT filter in CMT switched ON.

```
810 - 825 MHz        no reception (probably due to not locking of the PLL)
826.000 MHz          0.60 µV          max. 34 dB SINAD at 9 µV RF input
827.000 MHz          0.60 µV
830.000 MHz          0.40 µV
840.000 MHz          0.25 µV
850.000 MHz          0.25 µV          max. 34 dB SINAD at 8.5 µV RF input
860.000 MHz          0.28 µV
870.000 MHz          0.50 µV
880.000 MHz          0.64 µV
890.000 MHz          0.78 µV
900.000 MHz          0.82 µV
910.000 MHz          1.00 µV
920.000 MHz          1.14 µV
930.000 MHz          1.08 µV
940.000 MHz          1.33 µV
950.000 MHz          2.53 µV
953.000 MHz          3.60 µV
954 - 999 MHz        no reception (probably due to not locking of the PLL)
```

ALINCO DJ-580EB output power measurements

All power measurements performed with Radio communication Tester CMT from Rohde & Schwarz.

144 - 146 MHz band:

Freq.	L	M	H	Remark
144.000 MHz	0.327 W	1.28 W	5.40 W	(13.8 V. ext.)
	0.343 W	1.28 W	3.18 W	(EBP-20, fully charged)
144.500 MHz	0.322 W	1.26 W	5.35 W	(13.8 V. ext.)
	0.339 W	1.26 W	3.16 W	(EBP-20, fully charged)
145.000 MHz	0.318 W	1.25 W	5.27 W	(13.8 V. ext.)
	0.333 W	1.25 W	3.16 W	(EBP-20, fully charged)
145.500 MHz	0.313 W	1.23 W	5.20 W	(13.8 V. ext.)
	0.330 W	1.23 W	3.19 W	(EBP-20, fully charged)
145.995 MHz	0.309 W	1.21 W	5.16 W	(13.8 V. ext.)
	0.324 W	1.21 W	3.17 W	(EBP-20, fully charged)

430 - 440 MHz band:

Freq.	L	M	H	Remark
430.000 MHz	0.294 W	1.48 W	4.91 W	(13.8 V. ext.)
	0.313 W	1.44 W	2.44 W	(EBP-20, fully charged)
432.000 MHz	0.294 W	1.49 W	4.91 W	(13.8 V. ext.)
	0.313 W	1.45 W	2.43 W	(EBP-20, fully charged)
434.000 MHz	0.290 W	1.49 W	4.90 W	(13.8 V. ext.)
	0.313 W	1.46 W	2.41 W	(EBP-20, fully charged)
436.000 MHz	0.290 W	1.48 W	4.88 W	(13.8 V. ext.)
	0.320 W	1.45 W	2.40 W	(EBP-20, fully charged)
438.000 MHz	0.287 W	1.47 W	4.93 W	(13.8 V. ext.)
	0.307 W	1.45 W	2.39 W	(EBP-20, fully charged)
439.995 MHz	0.284 W	1.45 W	4.95 W	(13.8 V. ext.)
	0.302 W	1.43 W	2.39 W	(EBP-20, fully charged)

top of page
add a comment

This modification has been read 4489 times.

DJ-580EB S-meter indication

For these measurements the Radio communication Tester CMT from Rohde & Schwarz was used to generate the HF signal.

Note:
Especially at lower levels the segments of the DJ-580 were flashing on and off. The signal levels below were measured at the point were the segments remained ON for about 50% of the time.

144 - 146 MHz band:

SEGMENT	Level
1	0.22 µV
3	0.34 µV
5	0.52 µV
7	1.00 µV
9	1.95 µV
FULL	3.24 µV

430 - 440 MHz band:

SEGMENT	Level

1	0.19 µV
3	0.33 µV
5	0.44 µV
7	0.69 µV
9	1.20 µV
FULL	(not seen)

DJ-580 secret codes/modes

Some time ago, fellow hams have send out not mentioned codes which can be activate when the keyboard is lock (with the key-sequence FUNC * = FL).

One of them was #123 - I think I found out what this code do. If you type in this code when the keyboard is locked the display shows up one digit and after each new try it will increment the digit starting from 0 to H. - This code change the DTMF-Setup!!! - It seems there are several DMTF-mode stored in the DJ-580 (from 0 to H). The difference between these modes are different signal length and probably different signal/tone frequencies. After changing to a other digit than 0, you are only able to decode DTMF from other stations with the same setup.

If you have changed your DTMF - don't worry. Type in #123 several times until the digit 0 appears on the display again and than unlock your keyboard. Now your DJ-580 should be in the default mode again.

DJ-580T coverage for newer rig

Here is another mod for the Alinco DJ-580T...
Depending on the age of the rig this is a mod to open the rec and transmitter.
If you have a newer rig, take the battery off and the 4 screws that hold on the battery and find the RED wire, cit it and tape the ends to open the receiver to be able to transmit on all bands you rec with the reception on 800 and 900 cut the Blue wire, I have don't this and have had no problem sat all...
The RED and BLUE wire are looped so you cant miss them...
Enjoy the new coverage...

DJ-580 HT review/info (long)

I mailed information on the new Alinco dual band hand-held, the DJ-580T to a couple folks that had enquired about them. These people had some requests for the information, so decided that I'd just post it. This is not intended to be a complete review of the radio, just information I had e-mailed.

Note: I posted a couple weeks ago about a stolen DJ-160, the 2 meter Alinco. I had a few e-mail responses to that post. It was stolen by a brother of one of the Girl Scouts in my Daughter's troop. We now have it back -- returned after two weeks, one day before I was going to mail a claim to the ARRL insurance.

The DJ-580 dual band radio is one of the "small" hand , not the smallest thing out but a very nice size. I think it has a nice solid feel to it. Display shows both VHF & UHF frequencies, as well as indication for which band is receiving a signal. Lighted keyboard. Built in CTCSS encode and decode, as well as tone paging.

I purchased my first DJ-580 from Amateur Radio Supply in Seattle (ARS) at the ham fair in Washington. Price was $399. After playing with it for a weekend I decided that it was a great radio and I purchased another one for my wife. The second one was from Ham Radio Outlet (HRO) in Tigard, Oregon. Price there was also $399.

At a ham fair in Salem a couple weeks ago Electro-Comm (a small Alinco only dealer in Washington) sold out of their 580s and had not yet received new ones. At the ham fair last week ARS had just received them -- I don't know how many they got, but every time I passed their booth I saw someone buying one. HRO has had two shipments of 10 each, and after I got mine they had one left. These things seem to be popular.

They use a battery specific to Alinco. The battery is *MUCH* improved over the DJ-160 (2 meter only) radio. On the DJ-160 the battery can be easily removed when the radio is stressed in a purse or backpack. This doesn't break it, but is a nuisance. On the DJ-580 the connection seems quite secure. It comes with a drop in charger -- standard slow charge. I think there is a fast charger for it. Standard battery is 7.2 volt 700 ma nicad.

I measured the current draw, and with a single band turned on it draws about 60 ma, and with both bands on 100 ma (squelch not broken of course). With the battery saver feature you should get about 60 percent improvement on power consumption. In battery save you listen for 130 ms and then drop to standby power for 390 ms. Unfortunately it is not easy for me to measure the power used in this standby setting but I'd guess that it averages out to perhaps a 60 percent savings.

Only thing I worry about a bit with Alinco is that they seem to come out with a neat new model each year. The 580 is a clear winner over the 560 dual band. Don't know what they will have next year, but perhaps the 580 is selling well enough that they will stick with it a while. Anyway, hope they decide that this is a good battery design and keep it.

We did put this on a signal generator and it was a bit more sensitive than the Yaesu FT470 (think that is their small dual bander) we also had with us. I hadn't made the out of band mods yet so couldn't check sensitivity out of band. I do know that many of the radios will display out of band but are not sensitive enough to actually pick up anything. The 580 does seem to receive out of band quite well. As I say though, I don't have any info on intermod rejection.

I was asked about modification of the DJ-580 for out of band operation. They couldn't have made it much easier:

> Remove battery pack.
> Use a small philips screwdriver (ie. jeweler size) to remove the 4 screws that hold the metal battery slide on the radio. These are at the outer corners of the metal clip.
> Gently lift off the metal clip. Note that the two power wires are on this so don't pull it too far off. Also note that there is a small metal tab on this clip that is inserted in the battery release slide. You will want to insert it back in the same hole when you replace the metal clip.
> You will see a small RED wire loop as well as a small BLUE wire loop. You can gently pull these up with some needle nose pliers. Cut the loops and then cover the ends so they don't contact anything. My method was to cut them not quite at the top, so one wire was a bit longer than the other. I then slipped a small piece of heat shrink tubing over the wires so the ends could not contact each other again. This is probably adequate. I took a CLEAN soldering iron and used that to shrink the tubing a bit just so it wouldn't move.
> Push the wire loops back into the radio. The metal battery clip will push up against the circuit board running down the center of the radio so you don't want the wire loops crossing over the circuit board.
> Replace the metal plate -- remember to stick the projection into the small hole on the battery release slide.
> Replace the battery pack and reset the radio. You reset the radio by holding the function key down and turning on the power. Note that this clears all memories, so make the mod early -- this thing has 40 memory channels - a lot to reprogram.

I cut both jumpers. Documentation I have, as well as verbal instructions was that the RED jumper opens up the out of band receive -- aircraft and cellular, while the BLUE wire opens up the out of band transmit. You certainly can't transmit in the aircraft or 800 band, I don't know just what transmit limits are, don't have any reason to stray outside of the ham band.

Also, the default memory set up is 20 channels for VHF and 20 for UHF.
You can allocate these differently if you wish, for example 30 VHF and 10 UHF. The manual describes this procedure. The manual that comes with it isn't too bad -- at least not for the "simple" stuff. I don't know if it does a good job of describing things like cross band repeat. If you get one of these radios contact jay Appell at jay@zen.cac.stratus.com and tell him you have a 580 and would like to have him e-mail you a manual. He has one in progress now. I have the first draft and it is pretty good. Think the second draft will be out in a month or so.

Alinco DJ-580 repair

OK, since I just went through this broken antenna thing recently, let me jot down a few of the highlights...

First thing is to remove the wrist strap and all the knobs from the top of the radio. The knobs just pull straight off.

Around the knob shafts is a nut of sorts, more like a sleve with threads. They sit down in the gap between the shaft and the radio shell, and have two notches, 180 degrees apart. They probably want you to use some sort of special tool to unscrew them, but I just used a really small screw driver (basically anything small and pointy will do). This is probably the part you missed. Use the screw driver to push the notches around the shaft to unscrew the nut.

Un-do the 4 screws that hold the base plate on. Be careful with the wires and the spring that pushes on the battery release. Also un-do the 3 screws that hold the front and back halves of the radio together. The radio can now come apart, although it won't want to.

The ribbon cable joining the two halves of the radio has enough stretch to just barely allow the radio to be taken apart. The thing you're trying to do is get the knob shafts out of their holes. Once that is done you can lay the radio open on the table.

Of course, you're looking at two PC boards, one in each half. The BNC connector isn't on either of them :-(. It's buried below the one on the back side of the radio. There are 4 screws holding that one down, one in roughly each corner. Remove them, and carefully lift that board. Under it is yet another PC board, and under that one is the BNC connector. Alinco must have stock in the folks producing "Dr. Who".

At the top of the radio is a rubber gasket thingy which goes around the plugs for the mic/earphone/etc. I don't remember exactly how this went, but it will end up coming out.

With the second board lifted out of the way, you'll see some copper foil covering where the BNC connector is. There is a screw on the top right, and a solder blob at the bottom. Remove the screw and peel the foil back. I ended up breaking the solder blob in the process, but it was easy to put back. The under side of the foil has an adhesive on it.

There is a wire connecting the BNC's threads which broke off at the PC board *and* the center connection had cracked from the solder post. Use a really small soldering iron and touch up both connections. Be real careful not to burn anything, drop solder on anything, or bend the little coils near the center connector's post. I didn't use any extra solder, just re-flowing what already was there.

With the repair complete, reverse the process to put things back together. Don't forget to re-blob the foil, and get all the rubber gizmos (PTT/Function switch, and the seal around the speaker/mic connectors back in place, and not pinched under something else.

As a final step, get some good epoxy and run a bead around the BNC connector to keep it from moving in the future. Come to think of it, you might want to put some on the inside while the radio's open, but I put it on the outside.
Seemed safer.

I've probably forgotten some minor, but important detail in all this, but this is from memory, so use your best judgment. Don't force anything; they put it together without a hammer, so you shouldn't need one to take it apart. You will need a real

fine Phillips screwdriver, fine tip soldering iron, and NO INTERRUPTIONS to pull this off.

Good luck,
Greg KD6KGW

User comment

Subject: Alinco dj-580 mod

To Greg KD6KGW
Thank much for the fix on the antenna jack. I had left it on the shelf a couple years ago because of a bad BNC jack. Two or three years ago Alinco must have realized they had a problem as they were selling replacement jacks and also offered to fix it for way to much money. I finally decided to try and fix it. I got as far as taking out all the screws and couldn't get further. Who could tell that all the control knobs and subsequent spanner screws had to be removed as well. It looks as though it would pop apart without that. Anyway, after removing the spanner nuts on the controls the rest was not to bad. Just four more screws on the center board got me to the antenna jack. I very carefully lifted the copper foil over the BNC right at the upper left where the screw comes out with a jewelers screwdriver and peeled it back. I then reflowed both the connectors to the BNC and re-assembled the unit. The one rubber gasket doesn't pose that much of a problem if you don't remove it in the first place. It usually stays with the center board if not desturbed. Despite all your precautions I have to say it wasn't as hard as I thought. My problem was not knowing you have to remove the knobs and their associated spanner nuts.
Bottom line is that the operation went well and the patient has had a full recovery. I really wonder how one would put in a new BNC as it looks both press and solder fit. However Alinco at one time did offer this jack and also offered to do the fix as I said previously at big money. Alinco now seems to refer you to some contracted company and the fix is extremely expensive. Probably close to what you could buy one used for.
Anyway, thank for giving me the courage to go forward and finish the job. It's really nice to have the rig back as it was one of my favorites. Despite the fact that I used some Plumbers Weld epoxy on the inside I will never pick that radio by it antenna again.

Let me know if you get this email as you didn't really leave a direct email address.

Pat Szulczewski WE9P
PSzulczewski@aol.com

DJ580 mod info (Blue wire)

In the following, i will discuss the modification of an alinco DJ-580e, which will maybe also work for us model.

There is the well known methode, of cutting the blue wire.
Some om's are reseting their handy, and befor reassembling, they connect the blue (now two) wire together. so, if you reset the DJ-580 again, you have an transceiver without modifications.
There is also an other possibility:
Cut the blue wire. make sure, that the ends are isolated and make no connection to any other equipment. reassemble the alinco. Now you must full reset the 580. this is made by pressing the function key during power on. you have an opened handy for receiving and transmitting.

** Connect the dummy load for tests **

You can program the memories and so on.
I think till now, it's well known.
Now, for closing the handy again, do the following. The 580 is powered off. press the function key - and leave it pressed. then power on and leave the function key already pressed. Now power off again. (now you can release the function key -

hi) during the power on phase, you have seen all the symbols on the display. and the fine think is: with this half reset you do not lose the contents of the memories, but the handy is set to the normal ham band limits.
If you want open for receiving, you can do it, by software mod. Remember, the blue wire is already cutted.

Beware, it's not allowed to receive or transmit out of the ham bands. use the dummy load for tests.

Manual for Alinco DJ-580 model

dj-580man.zip ZIP file.

DJ-580T Keypad mods

#1:

First, disable the primary functions of the Keypad by Holding down the "FUNC" and hitting the " * ". Next, Hit in sequence, " # 1 2 0 ".
If " open " is displayed on screen, You may use the battery for an extended period on receive (for ALKALINE batteries) .
If " close " is displayed on screen, you may only use the battery down to the normal preset level (for NI-CAD batteries) .
You may switch between the settings, but turn the radio off briefly to bring the radio into the new setting. Have fun.

#2:

First, disable the primary functions of the Keypad by Holding down the " FUNC " key on the side of the radio. Now hit the " * " key.
Next, hit in sequence " # 1 2 3 ". This mod. adjusts the Auto-Dialer Setting in the Radio. A number or letter will appear on screen.
Play with the settings only on a simplex freq. with low power.
Repeaters can not yet handle the slow speeds much less the fast speeds , so this mod. will be important only in the near future. However, have fun with this one too.

Although these mods. are for the Alinco-580T/E. It is believed that other Alinco products have similar mods. available via Keypad Entry. Mobiles and HTs alike.

Send comments to N0VKG on the TOYBBS:KD9SG BBS or IPALN:KB9BPF Mailbox here in the St. Louis Area.

Alinco DJ-580 unt 9600Bd

Ich habe mir vor ca. einem halben Jahr mein DJ-580 auf 9k6 umgebaut.

Den RX hab ich folgendermasen abgenommen (Ich hoffe Du verstehst was ich meine, sonst einfach Nachfragen (TNC läuft meistens auf AAB (vor allem Abends)) Also..vom IC 101 geht an pin 11 ein 1k Ohm Widerstand auf ein kleines Netzwerk. An diesem habe ich mit 6,8k Ohm den RX abgegriffen . (mittelpunkt R 113, C 117,R 122 und R 123).
Das mit den 6,8k Ohm geht recht gut, habe damals auch ein bissl mehr (bis 10k) ausprobiert aber dann war das Signal für das TNC zu klein.

TX hab ich direkt auf die VCO Unit aufgeschaltet und zwar direkt auf den MOU-Eingang der VCO-U einheit (bei R 528,C 561). Das hat zwar den Nachteil, daß auf 2m kein TX möglich ist, aber das braucht man ja eh nicht..hi
Ich hatte Anfangs Angst, daß mir das Signal ohne auftrennung der bestehenden TX zu weit verändert wird, aber das hat sich nicht bestätigt.
Lageplan hab ich leider keinen und im Kopf hab ich das von damals auch nicht mehr so genau, aber da mußt man halt die Leiterbahnen verfolgen. (Lupe ist da sehr hilfreich..hi)

So, was mir noch als gute Idee erschien und ich dann auch so realisiert habe war, daß ich zur Signalrausführung die V/U Buchse verwende (V und U getrennt auf linken und rechten Kanal ,direkt neben der Ant-Buchse).
Da muß man dann zwar etwas überbrücken und einen Draht abzwicken aber ich habe für diese Buchse sowieso keine Verwendung.
Welche zwei Drähte das waren weiß ich zwar leider nicht mehr, aber das kann man ja aus dem Schaltplan raussehen.

So, zuletzt wäre noch zu sagen, daß nachden ich das TNC noch auf den TRX ab-geglichen habe das ganze UFB funktioniert ,wie gesagt seit gut 6 Monaten. Garantie übernehme ich natürlich keine, egal in welcher Form auch immer, aber das dürfte ja klar sein..hi

So, ich hoffe daß ich Dir weiterhelfen konnte.

73's de Thomas aus Bad Tölz ,JN57SS

Umbauanleitung des Dualband-Handfunkgerätes Alinco DJ580 für Betrieb mit 9k6

Hallo Om's,
Ich habe mich einmal daran gemacht mein DJ580 für 9k6 umzubauen. Als erstes fiel mir nach dem Aufschrauben des Gerätes auf, daß hier wirklich kein Platz ist, um eine zusätzliche Buchse einzubauen. Die Lösung, welche ein anderer Om schon einmal vorgeschlagen hatte, die vorhandene V/U-Buchse zu nehmen gefiel mir nicht, da ich dann einen zusätzlichen Stecker für die PTT benutzen müßte. Also habe ich mir etwas anderes einfallen lassen. Die vorhandene V/U-Buchse habe ich ausgebaut, und das Loch etwa 0,5 mm aufgebohrt. Hier paßt nun der untere Teil des Innenlebens einer Mini-DIN-Kabelbuchse hinein. Ich hatte grad 6-polig mit passendem Stecker im Hause, aber es geht auch jede andere. Es werden nur 4 Kontakte (TX,RX,PTT,Masse)gebraucht. Die V/U-Buchse ist auf einer kleinen Platine eingelötet. Diese Platine kann man leicht herausschrauben, um die Buchse dann auszulöten. Die Gummidichtung, welche von innen im Gehäuse eingesetzt ist, muß man dann für die neue Buchse entsprechend auschneiden.

Als erstes habe ich also gebohrt, das Innenteil meiner Kabelbuchse stramm eingesetzt und mit etwas 2-Komponenten-Kleber fixiert. Die Buchse steht ca. 10mm aus dem Gehäuse heraus, aber wenn es fertig ist, sieht es so aus, als müßte es so sein. Sie sitzt dann neben der BNC-Buchse hinter dem Lautstärkeregler UHF und stört absolut nicht.

Danach kann man von innen an die 4 zu benutzenden Kontakte der Buchse jeweils einen Draht entsprechend der benötigten Länge anlöten.
Nun muß man die darunterliegende große Platine ausbauen. Dazu erstmal die große Weißblechabdeckung abschrauben, danach die verbleibenden 2 Schrauben der Platine herausdrehen. Nun die Antennenbuchse ablöten. Danach kann man die Platine herauskippen.

Man muß mit dem TX-Signal an den UHF-Oszillatoreingang MOU gehen. Hier kann man die Leiterbahn vom Steckeranschluß (Verbindung zum anderen Board, dritte von oben) verfolgen, hier ist die Schaltung ganz hilfreich. Ich habe den Draht an den Widerstand R528 (22k) und Kondensator C584 (1000p) gelötet.

Nun kann man die Platine wieder befestigen, und das Weißblech wieder einschrauben. Antennenbuchse wieder anlöten, und die Platine mit den Mic- und Lautsprecherbuchsen wieder einsetzen. Mit dem PTT-Anschluß kann man über ca. 2k2 an die Mikrofonbuchse gehen. Masse ist in der Gegend auch reichlich vorhanden...hi.

Nun fehlt noch der Draht für das RX-Signal. Hierzu muß man an die Platine in der anderen Gehäusehälfte gehen. Das Rx-Signal greift man am besten zwischen R113 (1k) und R122 (47k) ab. R113 kommt von Pin 11 am UHF-Demodulator IC 101. Leider liegt er aber auf der Unterseite der Platine. Unter dem IC101 ist eine Durchkontaktierung von Pin 11 auf die Unterseite. Da kann man dann die Leiter- bahn bis R122 verfolgen. Dort am besten den Draht anlöten.

Nun kann alles wieder zusammengebaut werden, mit dem gleichzeitigen Gebet, daß doch bitte noch alles funktionieren möchte...hi.
Bei mir klappte es auf Anhieb mit 9k6, weiterhin ist natürlich 1k2-Betrieb über die Mic-LS-Buchsen möglich. Zur Anpassung der Filterkurve mußte ich bei meinem 9k6-Modem nach DF9IC alle 4 Jumper ziehen, damit klappt es am besten. Außerdem kann ich mit einem TX-Delay von 18 noch gut arbeiten, was für ein PLL-Gerät nicht schlecht ist (mein Quarz-TX zum Vergleich TXD 8).

Abschließend möchte ich noch bemerken, daß ich diesen Umbau nur Om's empfehle, die etwas Erfahrung im Umgang mit SMD-Geräten haben. Eine feine Lötspitze, eine Lupe und eine ruhige Hand sind Voraussetzung. Weiterhin übernehme ich natürlich keine Verantwortung für irgendwelche Schäden oder sonstiges.

Viel Spaß beim Basteln wünscht
Fred, DL6BAW @ DB0AHO

Extended frq. DJ-580 new mod

Hi folks,
Here is a "new" (ish !) mod,concerning the expansion of this excellant rig.
Everyone knows of the "cut blue wire for extended RX" and even the other one for TX ! but once done,there is no way of reversing the proccess...

Oh yes there is !! listen carefully...

Turn off rig,
Hold down the function button and turn on,
Still holding the function button,
Switch off.

(do NOT let go of the function button until the rig is OFF,or you will reset the radio,and lose all your memorys !)

The radio is now "as standard" ie Ham only freqs... now to toggle the wideband operation,use the #212 keycode (as listed in the manual,for enabling the airband)

User comment

Extendet mod

To return to extendet mod without restarting the radio just type
#ABC. I try this on DJ-580E.

DJ-580T 800 MHz software mod

Here's a neat keyboard mod which will allow the Alinco DJ680T to receive in the 800 band:

This mod requires you to already have performed the AM Aircraft/Expanded RX mod described in the owners manual (cut the red wire and reset the radio).
Having done that, place your radio in VFO mode on the UHF band. Hold down the [Function] button then repeatedly press the [UHF] button until you see a number in the display like 875.00. You can now tune from 810.00 to 998.9875 in .0025 steps!

Also, having done this, while in VFO mode on either band if you hold the [Function] button and repeatedly press the respective [VHF] or [UHF] key you will toggle between your standard VFO and the expanded RX VFO. Neat!
73's de Lee n8vyh @ wb8h.#semi.mi.usa.na